Characterisation of the Baltic Sea Ecosystem:
Dynamics and Function of Coastal Types
http://charm.dmu.dk

Minutes from second CHARM Dialogue Meeting, April 26-27, 2004

Location: European Environment Agency, Copenhagen
Participants: See list of participants at the CHARM web-site

April 26

Welcome and introduction by Sif Johansson

Sif welcomed everyone and presented CHARM briefly. All participants introduced themselves. All countries around the Baltic Sea, with the exception of Estonia, were participating at the meeting.

The overall aim of the dialogue meeting is bridging the gap between senior officials and managers involved in the legal implementation of the Water Framework Directive around the Baltic Sea and scientists working within the CHARM project.

The objective of this meeting is threefold:
- to discuss the content of a user's guide on type areas and reference conditions for the Baltic region;
- to present how the CHARM project is proceeding;
- to formulate questions, relevant to you, for the scientists to consider at the August workshop in Estonia.

The user's guide is one of the final products from CHARM, and the objective of the discussions at the meeting is to make the guide as functional as possible for users.

Presentation of the CHARM project by Jesper H. Andersen

For further information about the project, see the CHARM web-site http://charm.dmu.dk (see Meetings). The PowerPoint presentation is also found at the web-site.

CHARM is an EU-funded project, which started in 2001 and will run until December 2004. CHARM consists of 11 partners from around the Baltic (not Russia). The focus of CHARM is on coastal eutrophication within the Water Framework Directive. CHARM consists of seven work packages; WP 1 (Typology), WP 2 (Key indicators and response in relation to typology for phytoplankton) and WP 4 (Key indicators and response in relation to typology for benthic infauna) are represented at this meeting. This dialogue meeting with end-users is one deliverables of WP 7 (Dissemination).

The work of CHARM results in a lot of data, which has high value. The useful data is possible to reuse in different context.

Group discussion:

Two groups were asked to think about a user's guide with results from CHARM and make a first draft of, for example, the content, important issues that should be covered and/or make a dummy of a guide. The groups will have an opportunity to revise the first draft after the presentations before presenting it in plenum.

Presentation I: Typology

By Magdalena Wielgat

The PowerPoint presentation is found at the web-site http://charm.dmu.dk (see Meetings), together with a publication on typology (see Publications).

The typology is made only for the coastal waters, often very shallow, around the Baltic. The outline of typology follows the classification of the WFD guidance document on typology. It has a hierarchical approach of which salinity, depth together with mixing of the water column and retention (residence) time are regarded in CHARM.

In the Typology work-package they have developed 'an umbrella typology'. Salinity is the overall steering factor, and includes in total eight types for the Baltic Sea; water retention time and depth are sub-factors. The Baltic typology is subdivided according to national typologies. Transitional waters are not included

Comments and discussion:
The umbrella approach seems useful for most countries.
A present the countries have:
Denmark: 15 types – no transitional waters
Finland: 11 types - no transitional waters
Germany: 4 types divided into 24 water bodies
Latvia: 4 types and 1 transitional water (in the Gulf of Riga)
Lithuania: 2 types and a typology for transitional waters – lagoon or heavily modified – with 4 types
Poland: not yet an official typology
Sweden: 23 types

Thus, around 60 types are identified in the Baltic Sea. Is it possible to identify and pool similar types so that the total number could be reduced? This is a question for the EU inter-calibration process and not for CHARM. However, the meeting noticed that there is a clear discrepancy between experts wanting many types and managers wanting few types.

The meeting agreed to send information of national typology to Magdalena Wielgat. She will put the information together. It may be possible to have a poster at the Tallinn-meeting.

Magdalena Wielgat **will send** the new CHARM typology to all participants.

April 27

Presentation II. Monitoring strategies and coastal monitoring networks
by Jesper H. Andersen

The PowerPoint presentation is found at the web-site http://charm.dmu.dk (see Meetings).

One WP in CHARM is focusing on monitoring strategies. Jesper highlighted some aspects on monitoring in the WFD. According to the WFD Article 8 it is said that all countries should establish a monitoring net to be operational January 1, 2007.

Jesper gave examples from Denmark, where they have tried to implement the requirements from both WFD and Habitat Directive. Jesper stated that the frequency according to WFD is nonsense for coastal waters

Comments and discussion:
The presented program can be regarded as a development of the previous one (fulfil OSPAR, HELCOM, EU directives etc). The links to the Habitat Directive are seen in a fish monitoring part, nature types, special program for the habitat types etc.

Presentation III: Reference condition – phytoplankton
by Anna-Stiina Heiskanen

The PowerPoint presentation is found at the web-site http://charm.dmu.dk (see Meetings).

Anna-Stiina Heiskanen started to show a CD from DG Environment with all documents related to the Common implementation Strategy for the WFD (ISBN 92-894-2040-5). The CD is free of cost.

For phytoplankton the challenges are to develop phytoplankton indices and reference conditions for those. In the WFD it is stated that reference conditions should be close to pristine. There are several methods to establish this: historical data, paleoecology, modelling, hind casting, expert judgement or a combination of these methods. The reference conditions are revised every five years.

Examples of historical data from Gulf of Riga, Gdansk Bay, Tallinn Bay were given. It has shown to be not feasible to try to reconstruct historical data. Paleoecology from coastal areas may be a better way? Data of chlorophyll are more frequent, but it masks changes in species composition.

Presentation IV: Reference condition – benthic fauna
by Jens Perus

The PowerPoint presentation is found at the web-site http://charm.dmu.dk (see Meetings).

There are large regional differences. The most promising way to reach values on reference conditions are the functional approach. For benthic fauna to be useful you have to consider both seasonal scale and time scale.

Comments and discussion:
The reference conditions are not a goal, but it should show the direction.
One conclusion after the two presentations was that we could forget phytoplankton and benthic fauna for the time being. There is a need for strong indicators, and they are not enough well developed. Maybe in some local/regional areas, but is it possible to generalize? Today, if you ask 10 scientists you get 15 answers. Thus, there is a big gap in knowledge.

Malin Gunnarsson handed out a short summary of the Swedish benthic fauna index.

Presentation from group discussion:

By Malin Gunnarsson and Joachim Voss

Each group presented an outline for the content in 'perfect' CHARM User's guide. The results were largely overlapping, thus a merged version is presented below.

CHARM
User's guide

0 Content

Introduction, aims & target groups [*is it possible to make a user's guide for both "implementer on national basis and for managers at the water authorities*?]

1 Typology
- 1.1 Aims
- 1.2 Definitions
  - 1.2.1 Justification of the chosen parameters
- 1.3 Golden advices (EU-guidance/ Literature /New findings)
- 1.4 CHARM umbrella
  - 1.4.1 Map of the whole Baltic Sea
  - 1.4.2 Description of background data and principles
  - 1.4.3 Description of the "umbrella typology" and of subtypes that can be added
- 1.5 Regional Approach
  - 1.5.1 Thematic maps
  - 1.5.2 Case studies (really wanted)
- 1.6 Comparison analysis (platinum)

2 Reference conditions [written as a toolbox]
- 2.1 Aims
- 2.2 Definitions

2.3 Golden advices
2.4 Description of general principles/approaches including description on why some approached were not used
2.5 Phytoplankton
- 2.5.1 Geographical, seasonal and year-to-year variations
- 2.5.2 "Clear" indicators
  - 2.5.2.1 – with low variability
  - 2.5.2.2 – with high sensitivity

2.6 Macroalgae
- 2.6.1 Geographical, seasonal and year-to-year variations
- 2.6.2 "Clear" indicators
  - 2.6.2.1 – with low variability
  - 2.6.2.2 – with high sensitivity

2.7 Zoobentos
- 2.7.1 Geographical, seasonal and year-to-year variations
- 2.7.2 "Clear" indicators
  - 2.7.2.1 – with low variability
  - 2.7.2.2 – with high sensitivity

2.8 Physical-chemical parameters
- 2.8.1 Geographical, seasonal and year-to-year variations
- 2.8.2 Connection between biological quality elements and nutients
- 2.8.3 "Clear" indicators
  - 2.8.3.1 – with low variability
  - 2.8.3.2 – with high sensitivity

2.9 Regional approach
- 2.9.1 Case studies
- 2.9.2 Information

2.10 Evaluation/recommendation [to do and not to do]
2.11 Conclusions and recommendations for the future/further steps

3. Monitoring strategy

4. Applicability for the Marine Strategy

Summary and ending of the meeting

Sif Johansson and Jesper H. Andersen thanked for a fruitful meeting. Based of the meeting all work-package leaders will get a letter to be considered at the seminar in Tallinn.

The participants expressed a need for future cooperation on these issues. Jesper H. Andersen suggested a Baltic Managers Network (to be financed by NMR?, regional funds?).